

CLAIMS

What is claimed is:

1. A method comprising:
searching for a pilot signal of a second communications system while substantially
5 simultaneously being in communication with a first communications system.
2. The method according to claim 1 wherein said searching comprises:
recording on-line a portion of signals received from said second communications
system; and
background processing said portion of signals to search for said pilot signal.
- 10 3. The method according to claim 2 wherein said recording comprises recording a portion
of spread spectrum signals and said processing comprises processing a portion of spread
spectrum signals.
4. The method according to claim 3 wherein said processing comprises performing Code
Division Multiple Access (CDMA) acquisition.
- 15 5. The method according to claim 2 wherein said recording and said processing comprise
recording and processing a portion of CDMA signals while substantially simultaneously
receiving RF signals at a different frequency on-line.
6. The method according to claim 5 wherein said recording comprises recording said
portion of CDMA signals after converting the portion of CDMA signals from an analog signal
20 to a digital signal.
7. The method according to claim 5 wherein said recording comprises recording said
portion of CDMA signals after digitally processing the portion of CDMA signals.
8. The method according to claim 4 wherein said performing of CDMA acquisition
comprises finding a correlation between a pseudo-noise (PN) sequence of the recorded portion
25 of CDMA signals and one of a plurality of known PN sequences.
9. The method according to claim 8 and further comprising shifting the PN of the CDMA
signals.
10. The method according to claim 1 wherein said first communications system operates
in a compressed mode of communication, said compressed mode comprising a gap period
30 wherein there is generally no reception and transmission, and said searching comprises:
recording on-line a portion of signals received from said second communications
system during said gap period; and
background processing said portion of signals to search for said pilot signal.

11. The method according to claim 1 wherein communication signals from said first communications system comprise repetitions of sub-frames in a data frame, and said searching comprises:

5 recording on-line a portion of signals received from said second communications system during at least one said repetition of at least one said sub-frame in at least one said data frame; and

background processing said portion of signals to search for said pilot signal.

12. A dual mode receiver comprising:

10 a searcher adapted to search a pilot signal of a second communications system, while substantially simultaneously being in communication with a first communications system.

13. The receiver according to claim 12 wherein said searcher comprises:

a memory adapted for recording on-line a portion of signals received from said second communications system; and

15 a background processing unit adapted to process said portion of signals offline to search for said pilot signal.

14. The receiver according to claim 13 wherein said portion of signals comprises a portion of spread spectrum signals.

15. The receiver according to claim 13 wherein said portion of signals comprises a portion of CDMA signals.

20 16. The receiver according to claim 15 wherein said CDMA signals comprise a PN sequence.

17. The receiver according to claim 16 wherein said background processing unit is adapted to perform CDMA acquisition by processing said portion of CDMA signals offline.

25 18. The receiver according to claim 17 wherein said background processing unit is adapted to find a correlation between the PN sequence of said portion of CDMA signals and one of a plurality of known PN sequences.

19. The receiver according to claim 15 wherein said first and second communications systems comprise at least one of CDMA, Advanced Mobile Phone Service (AMPS), Frequency Division Multiple Access (FDMA), Time Division Multiple Access (TDMA), and
30 Global Mobile Systems (GSM) communications systems.

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